

Work Order ID 151831

Tuesday, October 11, 2016 8:27:54 AM

151831

Page 1

Item ID: D5421-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Hose Fitting

Start Date: 10/12/2016 Start Qty: 10.00

10

Cust Item ID:

Required Date: 10/26/2016 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals: Process Plan:

DAS
21
9-89

Date: OCT 11 2016

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D5421

A

100

0.00

100

Purchasing

Memo

0.00

Purchasing

Issue P/O: 33909
Purchase Part Number: (53485K22)
SUPPLIER: McMaster Carr
Certificate of conformity is required

10

OCT 11 2016

DAS
13
9-89

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Memo

0.03

Packaging

10x 8/16-10-13

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval			
Description Work Order Deviation				Disposition							
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due		☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter		FAULT CATEGORY ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes		☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center		☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence	
OTHER : _____											

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Page 2

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10

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC6- Inspect dimensions to drawing

0.00

120

QC

Memo

0.03

Quality Control

DAS
38
9-89

OCT 14 2016

150

Identify as per dwg & Stock Location: SH68

0.00

150

Packaging

Memo

0.03

Packaging

DAS
6
9-89

OCT 17 2016

160

QC21- Final Inspection - Work Order Release

0.00

160

QC

Memo

0.17

Quality Control

DAS
21
9-89

OCT 18 2016

DAS
21
9-89

OCT 17 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

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Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Picklist Print

Tuesday, October 11, 2016 8:27:59 AM

Page 1

Work Order ID: 151831

151831

Parent Item: D5421-1

D5421-1

Parent Item Name: Hose Fitting

Start Date: 10/12/2016**Required Date:** 10/26/2016**Start Qty: 10.00**

Required Qty: 10.00

Comments: IPP REV:A 16.10.07 NEW ISSUE DD VERF:JFS

[illegible]

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



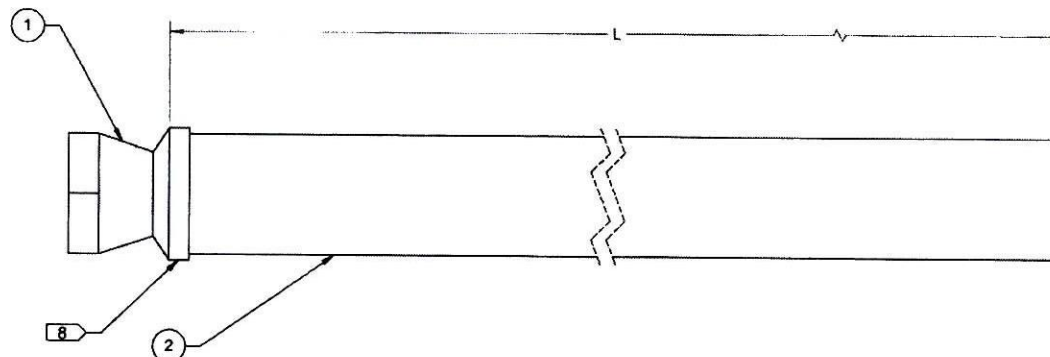
QA Closed: _____ Date: _____

Work Order update only ☐

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Root Cause		FAULT CATEGORY							
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Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
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LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

ITEM	QTY -041	P/N	DESCRIPTION
X	X	D5421-041	OIL DRAIN HOSE ASSEMBLY
1	1	D5421-1	HOSE FITTING
2	1	D5421-3	HOSE

SPECIFICATION CONTROL DRAWING



ITEM NUMBER	DART P/N	DESCRIPTION	PART NUMBER	L (FEET)	COLOUR	MATERIAL
1	D5421-1	HOSE FITTING	53485K22	N/A	N/A	BRASS
2	D5421-3	HOSE	5288K11	10	BLACK	NITRILE RUBBER REINFORCED WITH ARAMID BRAID

D5421-041 OIL DRAIN HOSE ASSEMBLY

NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH P/N "D5421-041" USING D2729 LABEL INSTALLED WITH D2182-045 HEAT SHRINK
- 7) WEIGHT: 0.05 lbs
- 8) ENSURE THAT THE D5421-1 HOSE FITTING IS FULLY INSERTED INTO THE D5421-3 HOSE, SUCH THAT THE HOSE END IS COMPLETELY CONCEALED BY THE PLASTIC RING ON THE FITTING. (OPTIONAL INSTALLATION TOOL: MCMASTER CARR P/N 53685K11)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 151831 MJS
16-10-11

RELEASED
2016-10-05
Ecu 16-588

APPROVED

A	NEW ISSUE	CC	16.04.21
REV.	DESCRIPTION	BY	DATE
DESIGN	CC	DART AEROSPACE USA, INC.	
DRAWN	CC	EUGENE, OREGON, USA	
CHECKED	VS	DRAWING NO.	REV. A
MFG. APPR.	JLM	D5421	SHEET 1 OF 1
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	OIL DRAIN HOSE	NTS
DATE	16.04.21	COPYRIGHT © 2016 BY DART AEROSPACE USA, INC.	
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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

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Misidentified ☐	Past Due ☐																																																																



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO33909

Purchase Order Date 10/11/2016

PO Print Date 10/11/2016

Page Number 1 of 4

OCT 11 2016

Order From :

VU-MCM001

Ship To : DART AEROSPACE LTD

MCMASTER-CARR SUPPLY CO,
P.O. BOX 7690
CHICAGO, IL 60680-7690
US

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED

Contact Name

Vendor Phone 330 995 5500

Ship To Contact

Ship To Phone

Ship Via: Purolator ground ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607,

Terms Net 10

Currency USD

FOB FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
Line Comments		Promise Date					
Delivery Comments							
1	53485K22	Hose Fitting	10/13/2016 Yes 10/13/2016	FN	10.00 Each	\$2.56	\$25.62
AS PER DWG D5421 REV. A B151831							
						Line Total:	\$25.62
2	71500-11	5046A31 NO-TWIST C-CLAMP	10/13/2016 Yes 10/13/2016		2.00 Each	\$29.14	\$58.28
						Line Total:	\$58.28
Deliver To: JESSE							
3	80775-96	3076T35 TIE-DOWN RING	10/13/2016 Yes 10/13/2016		6.00 Each	\$1.60	\$9.60

Note:

10/11/2016



200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO33909

Order Placed By
Chantal Lavoie

McMaster-Carr Number
1859532-01

Page 1 of 1

10/12/2016

Line	Product	Ordered	Shipped
1	53485K22 Push-on Brass Barbed Hose Fitting 1/4" ID, 7/16"-20 UNF 37 & 45 Degree Female Flared End, Packs of 5	2 Packs	2 ✓
2	5046A31 No-Twist C-Clamp 4-1/4" Maximum Opening, Steel, Nonmarring	2 Each	2 ✓
3	3076T35 Tie-Down Ring Zinc-Plated Steel, 800 lb Work Load Limit, 1" ID	6 Each	6 ✓
4	3102A28 High-Speed Steel Changeable Pilot Counterbore 3/4" Body Diameter, 1/4" Shank Diameter, 3-1/8" Overall Length	1 Each	1 ✓
5	4000K791 Multipurpose Gauge Steel Case, Dual, 2" Dial, 1/4 Center Back, 15 PSI	1 Each	1 ✓
6	7445T12 Economy Lever-Activated Garden Hose Nozzle Die Cast Zinc	2 Each	2 ✓
7	44605K666 Steel, 2 Pipe Size, Square Head Plug	1 Each	1 ✓
8	28165A32 Jacobs Keyless Chuck for Cordless Drill 3/8" Capacity, 3/8"-24 Thread Mount	3 Each	3 ✓
9	53355T71 Polyester/Cotton Blend Shop Coat Dark Blue, Size 44	1 Each	1 ✓

8/16-10-13